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10/647,098	08/22/2003	Sean Burke	23627-07932	9868

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EXAMINER	
RAO, ANAND SHASHIKANT	
ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/647,098	BURKE ET AL.	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) *2-20 and 22-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,21 and 33-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/31/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1, 21, 33, 35-52 as filed on 3/31/09 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 21, 33, 35-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moezzi et al., (hereinafter referred to as "Moezzi") in view of McCutchen and further in view of Naidoo et al., (hereinafter referred to as "Naidoo").

Moezzi discloses network-based (Moezzi: column 38, lines 40-50) visual system (Moezzi: figure 17) for viewing (Moezzi: column 22, lines 55-65) of an environment (Moezzi: figure 1), comprising: a first sensor service unit operatively coupled to a first immersive sensor for capturing (Moezzi: column 25, lines 10-20) two or more digital images (Moezzi: column 24, lines 40-55) to generate first video data representing a first immersive panoramic field of view of the environment (Moezzi: column 23, lines 50-65; column 16, lines 25-35) a sensor subsystem for providing spherical image data and surveillance data (Moezzi: column 24, lines 10-25); and a management console operatively coupled to the network (Moezzi: column 34, lines 30-55), the network also operatively coupled to the first sensor service unit to allow transmission of the first

video data from the first sensor service unit to the management console (Moezzi: column 23, lines 5-20), the management console including a sensor display subsystem for displaying an immersive panoramic video based at least in part on the first video data transmitted over the network from the first sensor service unit (Moezzi: column 33, lines 5-20); and a data repository operatively coupled to the network for storing and retrieving the first video data marked with time-indices (Moezzi: column 38, lines 30-40), the time indices representing times at which the overlapping digital images were captured by the first immersive panoramic sensor (Moezzi: column 29, lines 20-33), as in claim 1. However, Moezzi fails to disclose a first sensor service unit operatively coupled to a first immersive panoramic sensor for capturing in real time two or more overlapping digital images covering an expanded field of view from a substantially same location to generate first video data representing a first immersive panoramic field of view of the environment; and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claims. The Examiner notes that McCutchen teaches of the use of an first immersive panoramic sensor for capturing (McCutchen: figure 19) two or more overlapping digital images (Moezzi: column 23, lines 5-56) to generate first video data representing a first immersive panoramic field of view of the environment (McCutchen: figure 18) a sensor subsystem for providing spherical image data and surveillance data (McCutchen: column 1, lines 45-60) in order to provide more detail in a monitored view by providing a panoramic image (McCutchen: column 5, lines 30-35). Accordingly, given this teaching, it would have been obvious at the time of the invention to augment the Moezzi apparatus by incorporating panoramic imaging as from

the McCutchen immersive panoramic sensor in order to provide more detail in a monitored view by providing a panoramic image at the input. The Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor, has a majority of the features of claim 1. However, the Moezzi-McCutchen combination still fails to disclose and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claim. Naidoo discloses a network system (Naidoo: column 6, lines 20-40) also including sensor units (Naidoo: column 7, lines 13-30) and further discloses real-time processing (Naidoo: column 5, lines 10-15) including a remotely located management console and data repository (Naidoo: column 7, lines 3-12) for monitoring of security of an environment (Naidoo: column 8, lines 10-30) for tracking security events (Naidoo: column 9, lines 5-31; column 10, lines 50-65) in order to provide a means for viewing a remote location for privacy based security and surveillance purposes (Naidoo: column 2, lines 45-52), and also allows for the similar use of panoramic imaging cameras as in the in the Moezzi-McCutchen combination (Naidoo: column 7, lines 30-40). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to further modify the Moezzi-McCutchen combination with the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time in order provide a means for viewing a remote location for privacy based security and surveillance purposes. The Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, has all of the features of claim 1.

Moezzi discloses a network-based (Moezzi: column 38, lines 40-50) method (Moezzi: column 9, lines 45-65) of monitoring (Moezzi: column 22, lines 55-65) an environment (Moezzi: figure 1), comprising: generating (Moezzi: column 23, lines 50-65; column 16, lines 25-35), at a first sensor service unit (Moezzi: column 25, lines 10-20), first video data representing a first immersive panoramic field of view of the environment from two or more digital images (Moezzi: column 24, lines 40-55) captured by a first sensor (Moezzi: column 38, lines 30-40); and at a the management console, displaying a first immersive panoramic video based at least in part on the first video data transmitted over the network from the first sensor service unit generating a spherical view display using the spherical image data (Moezzi: column 42, lines 30-42); and storing or retrieving, at a data repository, the first video transmitted over the network, the first video data marked with time indices (Moezzi: column 38, lines 30-40) representing times at which the digital images were captured by the first sensor (Moezzi: column 29, lines 20-33), as in claim 21. However, Moezzi fails to disclose generating, at a first sensor service unit, first video data representing a first immersive panoramic field of view of the environment from two or more overlapping digital images covering an expanded field of view from a substantially same location to generate first video data representing a first immersive panoramic field of view of the environment; and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claims. The Examiner notes that McCutchen teaches of the use of an first immersive panoramic sensor for capturing (McCutchen: figure 19) two or more overlapping digital images (Moezzi: column 23, lines 5-56) to generate first video data representing a first immersive

panoramic field of view of the environment (McCutchen: figure 18) a sensor subsystem for providing spherical image data and surveillance data (McCutchen: column 1, lines 45-60) in order to provide more detail in a monitored view by providing a panoramic image (McCutchen: column 5, lines 30-35). Accordingly, given this teaching, it would have been obvious at the time of the invention to augment the Moezzi method by incorporating panoramic imaging as from the McCutchen immersive panoramic sensor in order to provide more detail in a monitored view by providing a panoramic image at the input. The Moezzi method, now incorporating the McCutchen immersive panoramic sensor, has a majority of the features of claim 21. However, the Moezzi-McCutchen combination still fails to disclose and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claim. Naidoo discloses a network based method for monitoring security discloses (Naidoo: column 6, lines 20-40) also including sensor units (Naidoo: column 7, lines 13-30) and further discloses real-time processing (Naidoo: column 5, lines 10-15) and a remotely located management console and data repository (Naidoo: column 7, lines 3-12) for monitoring of security of an environment (Naidoo: column 8, lines 10-30) and for tracking security events (Naidoo: column 9, lines 5-31; column 10, lines 50-65) in order to provide a means for viewing a remote location for privacy based security and surveillance purposes (Naidoo: column 2, lines 45-52), and also allows for the similar use of panoramic imaging cameras as in the in the Moezzi-McCutchen combination (Naidoo: column 7, lines 30-40). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to further modify the Moezzi-McCutchen combination with the

Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time in order provide a means for viewing a remote location for privacy based security and surveillance purposes. The Moezzi method, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time, has all of the features of claim 21.

Moezzi discloses a computer program product comprising a computer-readable storage medium structured to store instructions (Moezzi: column 11, lines 55-67; column 12, lines 1-26: "software program") executable by a processor in a surveillance system (Moezzi: figure 17), the instructions, when executed, cause the processor to perform the operations of: at a first sensor service unit (Moezzi: column 25, lines 10-20), generate first video data (Moezzi: column 23, lines 50-65; column 16, lines 25-35) representing a first immersive panoramic field of view of the environment from two or more overlapping digital images (Moezzi: column 24, lines 40-55) captured by a first sensor receiving image data and surveillance data from at least one sensor (Moezzi: column 38, lines 30-40); and at a management console, display an immersive panoramic video based at least in part on the first video data transmitted over the network from the first sensor service unit (Moezzi: column 42, lines 30-42); and at a data repository (Moezzi: column 33, lines 5-20), store or retrieve the first video data transmitted over the network, the first video data marked with time indices representing times (Moezzi: column 38, lines 30-40) at which the overlapping digital images were captured by the first immersive panoramic sensor (Moezzi: column 29, lines 20-33), as claim 33. However, Moezzi fails to disclose generating, at a first sensor service unit, first video data representing a first immersive panoramic field of view of

the environment from two or more overlapping digital images covering an expanded field of view from a substantially same location to generate first video data representing a first immersive panoramic field of view of the environment; and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claim. The Examiner notes that McCutchen teaches of the use of an first immersive panoramic sensor for capturing (McCutchen: figure 19) two or more overlapping digital images (Moezzi: column 23, lines 5-56) to generate first video data representing a first immersive panoramic field of view of the environment (McCutchen: figure 18) a sensor subsystem for providing spherical image data and surveillance data (McCutchen: column 1, lines 45-60) in order to provide more detail in a monitored view by providing a panoramic image (McCutchen: column 5, lines 30-35). Accordingly, given this teaching, it would have been obvious at the time of the invention to augment the Moezzi method as implemented as a computer program product by incorporating the panoramic imaging as from the McCutchen immersive panoramic sensor in order to provide more detail in a monitored view by providing a panoramic image at the input. The Moezzi method as implemented as a computer program product, now incorporating McCutchen's panoramic imaging using the immersive panoramic sensor, has a majority of the features of claim 33. However, the Moezzi-McCutchen combination still fails to disclose and fails to disclose that the network system has a management console and data repository both located remotely from the first sensor service unit to monitor the security of the environment in real time for tracking security events for the real-time monitoring of events, as in the claim. Naidoo discloses a network based method for monitoring

security discloses (Naidoo: column 6, lines 20-40) also including sensor units (Naidoo: column 7, lines 13-30) and further discloses real-time processing (Naidoo: column 5, lines 10-15) and a remotely located management console and data repository (Naidoo: column 7, lines 3-12) for monitoring of security of an environment (Naidoo: column 8, lines 10-30) and for tracking security events (Naidoo: column 9, lines 5-31; column 10, lines 50-65) in order to provide a means for viewing a remote location for privacy based security and surveillance purposes (Naidoo: column 2, lines 45-52), and also allows for the similar use of panoramic imaging cameras as in the in the Moezzi-McCutchen combination (Naidoo: column 7, lines 30-40). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to further modify the Moezzi-McCutchen combination with the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time in order provide a means for viewing a remote location for privacy based security and surveillance purposes. The Moezzi computer implemented method, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time, has all of the features of claim 33.

Regarding claims 35-37, the Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, has wherein the first sensor service unit further comprises a motion detector for generating a sensor specific motion detection event data (Naidoo: column 7, lines 15-20) indicating detection of motion in the two or more overlapping images (Moezzi: column 23, lines 27, lines 35-50), the management console

operatively coupled to the motion detector for generating a motion detection alarm event based on the sensor specific motion detection event data (Naidoo: column 9, lines 5-32), as in the claims.

Regarding claims 38-39, the Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, has a second sensor service unit operatively coupled to a second immersive panoramic sensor for capturing in real time two or more overlapping digital images to generate second video data representing a second immersive panoramic field of view of the environment, the second sensor service unit operatively coupled to the network to transmit the second video data to the management console (McCutchen: figure 19), as in the claims.

Regarding claims 40-41, the Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, has a second sensor service unit operatively coupled to a non-image surveillance sensor system, the non-image surveillance sensor system generating non-image event data based on surveillance of the environment but not based on overlapping digital images, the management console operatively coupled to the second sensor service unit to receive the non-image event data via the network (Naidoo: column 6, lines 20-45), as in the claims.

Regarding claims 42-44, the Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, has wherein the data

repository comprises an image store for storing and retrieving the overlapping digital images received from the first sensor service unit via the network (Naidoo: column 45-60), and a non-image store for storing and retrieving the non-image event data received from the second sensor service unit via the network (Naidoo: column 8, lines 55-67; column 9, lines 1-10), as in the claims.

Regarding claim 45, the Moezzi apparatus, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance system for monitoring the security of an environment by tracking security events in real-time, discloses wherein the first sensor service unit transmits a heartbeat message to the management console, the heartbeat message indicating that the first sensor service unit is enabled and actively communicating with the management console via the network (Moezzi: column 29, lines 50-67; column 30, lines 1-23), as in the claim.

Regarding claims 46-48, the Moezzi method, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time, has the first sensor service unit, generating a sensor specific motion detection event data indicating detection of motion in the two or more overlapping images (Naidoo: column 7, lines 15-20); and at the first sensor service unit, generating a motion detection alarm event (Naidoo: column 9, lines 5-20), based on the sensor specific motion detection event data (Moezzi: column 9, lines 21-32), as in the claims.

Regarding claims 49-50, the Moezzi method, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time, has at a second service

unit, generating second video data representing a second immersive panoramic field of view of the environment from two or more overlapping digital images captured in real time by a second immersive panoramic sensor; at the management console, displaying a second immersive panoramic video based at least in part on the second video data transmitted over the network from the second sensor service unit; and at the data repository, storing or retrieving the second video data (McCutchen: figure 19), as in the claims.

Regarding claim 51, the Moezzi method, now incorporating the McCutchen immersive panoramic sensor and the Naidoo network based surveillance method for monitoring the security of an environment by tracking security events in real-time, has a at a second service unit, generating non-image event data based on surveillance of the environment but not based on overlapping digital images (Moezzi: column 47, lines 45-67; column 48, lines 1-45); at the management console, receiving the non-image event data via the network; and at the data repository, storing or retrieving the non-image event data (Naidoo: column 6, lines 20-45), as in the claim.

Regarding claim 52, the Moezzi method, now incorporating McCutchen's panoramic imaging using the immersive panoramic sensor, has wherein the first sensor service unit transmits a heartbeat message to the management console, the heartbeat message indicating that the first sensor service unit is enabled and actively communicating with the management console via the network (Naidoo: column 10, lines 50-55), as in the claim.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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June 22, 2009